UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,668	02/05/2001	Charles Coulier	032326-119	9326

7590 02/01/2005	EXAMINER
James A. LaBarre	JUNTIMA, NITTAYA
BURNS, DOANE, SWECKER & MATHIS, L.L.P.	

ART UNIT	PAPER NUMBER
2663	

P.O. Box 1404
Alexandria, VA 22313-1404

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/775,668	COULIER, CHARLES
	Examiner	Art Unit
	Nittaya Juntima	2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _08 October 2004_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-8_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-2,4,7_ is/are rejected.

7)☒ Claim(s) _3,5,6 and 8_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _08 October 2004_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This action is in response to the amendment filed on 10/8/2004.

2.   The objections to the drawings and claims are withdrawn in view of applicant's amendment.

3.   Claims 1-2, 4, and 7 remain rejected under 35 U.S.C 102(e).

4.   Claims 3, 5, 6, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Objections

5.   Claim 4 is objected to because of the following informalities:

- in claim 4, ll 2, "the first transaction" should be changed to "a first transaction" to avoid a lack of antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.   Claims 1-2, 4, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Bastiani et al. (USPN 6,675,243 B1).

Per claim 1, as shown in Fig. 36, Bastinani et al. teach interchanging transactions (exchanging of command and status, col. 38, ll 26-29) by means of a bus (a serial bus, Fig. 2, col. 6, ll 15-20) between the terminal (host computer 102 in Fig. 2) and the object (the device 106 in Fig. 2), each downlink transaction (transmission of OUTDATA 0/1 from the host to the device) comprising successively a token packet (the first 7 bytes of an OUTDATA 0/1 packet containing SYN, PT, BC, and DT fields constitute a token packet, Fig. 20, col. 25, ll 29-49, col. 38, ll 26-37), a data packet (the data and CRC fields of an OUTDATA 0/1 packet constitute a data packet with ATA/ATAPI command encapsulation, Fig. 20, col. 25, ll 29-49, and col. 38, ll 26-37), and a handshake packet (ACK packet sent from device to host, col. 38, ll 26-37 and col. 26, ll 26-29), and each uplink transaction (transmission of DATA 0/1 packet from device to host) comprising a token packet (INSTART packet indicating polling of device status, col. 38, ll 26-37), a data packet (DATA 0/1 packet containing device status, col. 38, ll 26-37), and a handshake packet (INSTOP packet implying ACK, col. 38, ll 26-37 and col. 26, ll 9-11), encapsulating the header of each command (8 bytes of the ATA command must contain the header of a command, col. 47, ll 6-10) in the data field of data packet of a downlink transaction (data field of Fig. 20 of an OUTDATA 0/1 packet, col. 38, ll 26-33) transmission of OUTDATA 0/1 from the host to the device), and the data field of a command (not defined, reads on a field of 8-byte ATA command) in the data field of at least one downlink transaction (col. 38, ll 29-33 and col. 47, ll 6-8, see also col. 25, ll 36-37), encapsulating the data field (not defined, reads on a field of 8-byte ATA status) and the trailer of each response (reads on 8 bytes of ATA status) in the data field of the data

packet of at least one uplink transaction (data field as shown in Fig. 22 of a DATA 0/1 packet, col. 38, ll 33-37 and col. 47, ll 8-10, see also col. 25, ll 50-62).

Per claim 2, as shown in Fig. 36, Bastiani et al teach that each token packet (each of INSTART packet) contains an identifier (IN) indicating the direction of the transfer of the data packet (DATA 0/1) succeeding it in a transaction.

Per claim 4, as shown in Fig. 36, Bastiani et al. teach that the token packet (the first 7 bytes of an OUTDATA 0/1 packet containing SYN, PT, BC, and DT fields constitute a token packet, Fig. 20, col. 25, ll 29-49, col. 38, ll 26-37) of a first transaction (not defined, reads on a transmission of the an OUTDATA 0/1 packet of Fig. 36 from host to device) in a sequence of a plurality of successive transactions (a sequence of a plurality of successive transactions is not defined, reads on transmissions of ACK, INSTART, DATA0/1, and INSTOP packets in which each provides a portion of a command or a response, col. 25, ll 50-62, col. 26, ll 3-12) contains an identifier announcing the beginning of the sequence (an identifier reads on the DT field of an OUTDATA0/1 packet which indicates whether the data is link control, device control or device data identifying the beginning of the sequence of transmissions of ACK, INSTART, DATA0/1, and INSTOP packets, col. 25, ll 45-47, col. 38, ll 26-37).

Per claim 7, Bastiani et al. teach that the beginning of the data field (8 bytes out of the maximum allowable data packet size, col. 14, ll 1-15, col. 25, ll 36-37, col. 47, ll 6-8) of the data field (DATA) of a data packet in the downlink transaction (OUTDATA 0/1 in Fig. 20) also contains an identifier of the format of the command (since the device returns status based on the command it previously received on the OUTDATA0/1 packet, therefore, the 8-byte ATA

command encapsulated in the OUTDATA 0/1 packet must contain an identifier to identify its

format in order to command the device to execute specific task, col. 38, ll 29-37).

Response to Arguments

8.   Applicant's arguments regarding claims 1, 2, and 4 have been fully considered but they

are not persuasive.

A.   In the remarks regarding claim 1, the applicant argues that in the downlink transaction,

Bastiani does not teach a token packet as a distinct packet from a data packet.

In response, because the structure of a token packet and a data packet is not clearly

defined in the claim, therefore, the office interprets the first 7 bytes containing in SYN, PT, BC

and DT fields of an OUTDATA 0/1 packet as a token packet, and the rest of the bytes containing

in DATA and CRC fields as a data packet (Fig. 20, col. 25, ll 36-49). Therefore, Bastiani clearly

teaches that each downlink transaction (transmission of OUTDATA 0/1 from the host to the

device, Fig. 36) comprising successively a token packet (the first 7 bytes of an OUTDATA 0/1

packet containing SYN, PT, BC, and DT fields constitute a token packet, Fig. 20, col. 25, ll 29-

49, col. 38, ll 26-37), a data packet (the data and CRC fields of an OUTDATA 0/1 packet

constitute a data packet with ATA/ATAPI command encapsulation, Fig. 20, col. 25, ll 29-49, and

col. 38, ll 26-37), and a handshake packet (ACK packet sent from device to host, col. 38, ll 26-37

and col. 26, ll 26-29) as recited in the claim. The rejection of claim 1 is sustained.

B.   In the remarks regarding claim 2, the applicant argues that Bastiani does not teach that

both of the downlink token packet and the uplink token packet contain an identifier.

In response, note that the recited claim element "each token packet" does not reference to both of the downlink token packet and the uplink token packet. Therefore, Bastiani clearly teaches that each token packet (INSTART packet, Fig. 36, col. 38, ll 38-46) contains an identifier (IN) indicating the direction of the transfer of the data packet (DATA 0/1, Fig. 36, col. 38, ll 38-46) succeeding it in a transaction. Thus, the rejection of claim 2 is maintained.

C.   In the remarks regarding claim 4, the applicant further argues that the claimed subject matter, i.e. the plurality of successive transactions each provides a portion of a command or a response, is not anticipated by Bastiani.

In response, since a sequence of a plurality of successive transactions is not defined in the claim, therefore, it reads on transmissions of ACK, INSTART, DATA0/1, and INSTOP packets in which each provides a portion of a command or a response, col. 25, ll 50-62, col. 26, ll 3-12.

Bastiani further teaches that a token packet (the first 7 bytes of an OUTDATA 0/1 packet containing SYN, PT, BC, and DT fields constitute a token packet, Fig. 20, col. 25, ll 29-49, col. 38, ll 26-37) of a first transaction (not defined, reads on a transmission of an OUTDATA 0/1 packet of Fig. 36 from host to device) contains an identifier announcing the beginning of the sequence (an identifier reads on the DT field of an OUTDATA0/1 packet which indicates whether the data is link control, device control or device data identifying the beginning of the sequence of transmissions of ACK, INSTART, DATA0/1, and INSTOP packets, col. 25, ll 45-47, Fig. 36, col. 38, ll 26-37). Therefore, Bastiani anticipates the claimed subject matter, and the rejection of claim 4 is maintained.

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

- USPN 5,987,530 (Thomson), disclosing a downlink transaction with a data packet

containing a command, and an uplink transaction in a USB environment (Figs. 5 and 6).

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The

examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima
January 26, 2005

RICKY NGO
PRIMARY EXAMINER